



# What Happens to Recycled Plastics?

*A Fact Sheet from the Solid Waste & Financial Assistance Program*

## **Coded Plastic Containers**

For plastics recycling to work, we should all understand there are many types of plastic. Plastic containers for consumer products are assigned a number between 1 and 7. This number will be found inside a recycling symbol (a triangle of arrows) on the container. The symbol with a number inside indicates what kind of plastic resin the container is made from; it does not guarantee that the plastic can be recycled in Washington State. **Before saving plastics for recycling, call 1-800-RECYCLE to find out what types of plastic are being recycled in your area.** You could save yourself a lot of storage space, and effort, if you take this initial precaution.



## **Processing**

Once collected, the various plastics must be compacted and baled. They can then be shipped to a plastics broker or processing facility. At this point, entire bales could possibly be rejected as unclean or "contaminated" by the wrong colors or types of plastic. This includes bottle tops--throw them in the garbage. Our cooperation in sorting plastics will be greatly appreciated by the businesses that collect plastics for recycling.

The plastic that is accepted will be unbaled and shredded or made into pellets for shipment to a manufacturer of plastic goods. The manufacturer would melt these shreds or pellets down for molding into new products. A large variety of items are manufactured (in whole or in part) from recycled plastics: fiberfill for sleeping bags, plastic lumber, flower pots, containers for non-food products, mats, strapping, scouring pads, toys, compost bins, recycling containers, and countless other possible things. Some of these products can be made from a mixture of different plastic resins, but even in such uses the proportion of different resins cannot be controlled unless they have been kept separate until they reach the manufacturing plant.

## **Closed-loop Plastic Recycling/Reuse**

To some extent, used plastic bottles are being reprocessed back into the similar types of new plastic bottle. Keeping the different numbers of plastic separate is necessary for this sort of recycling. Technology has been developed that can create new soft drink bottles using a percentage of plastic from recycled soft drink bottles. As these contain a product that people will drink, care must be taken

to assure that the post-consumer content of the new bottle has been sterilized. Soft drink bottles are made from polyethylene terephthalate (Number 1, PET).

Liquid laundry and dishwashing soap, shampoo, bleach, and household cleaner bottles are usually made from colored high-density polyethylene (Number 2, HDPE). These are also being made with a percentage of plastic recycled from the same kind of bottle.

Polystyrene (Number 6, PS) can be either in a hard, solid form or in an expanded form such as Styrofoam®. One product that can be made from recycled polystyrene is the egg carton. Egg shells keep the actual food product from coming into contact with the plastic container, so the requirement for sterilization is not as great. In fact, polystyrene and cardboard egg cartons are often simply reused without having to go through any remanufacturing process.

Simple reuse is also the easiest way to recycle polystyrene foam packing "peanuts" and "popcorn." Businesses listed under "Packaging Services" in your yellow pages might be in need of these, in which case they would be happy to help you keep them out of the landfill.

### **Uncoded Plastics**

Plastic consumer goods not identified by code numbers are not collected by any Washington recycling centers or programs. Plastic tarps, pipes, toys, computer keyboards, and a multitude of other products simply do not fit into the numbering system that identifies plastics used in consumer containers. There are actually thousands of different varieties of plastic resins or mixtures of resins. These are developed to suit the needs of particular products. There is limited recycling of some of these specific plastic products in truckload quantities from industrial sources. No one has entered the business of collecting a variety of these plastics in small quantities.

### **For More Information, or Special Accommodation Needs**

Contact: Solid Waste & Financial Assistance Program  
Department of Ecology  
P. O. Box 47600  
Olympia, WA 98504-7600  
**1-800-RECYCLE**

If you have special accommodation needs, contact **1-800-RECYCLE (VOICE)** or (360) 407-6006 (TDD).

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**June 1996**



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